# GIORGIO GAMBA

## Software Engineer

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## WORK EXPERIENCE

**Software Engineer**                                    **Leonardo Electronics, Aizoon Consulting**, Turin, Italy
`</>` [C++] [Qt] [DDS] [Sensors] [Google Protobuf]        📅 June 2025 – Present

- Integrated avionics sensors within distributed systems architectures
- Developed sensor simulators reproducing avionics communication protocols with data exchange below 2 ms

**Software Engineer**                                                      **34BigThings**, Turin, Italy
`</>` [C++] [Unreal Engine]                                                📅 Sept 2022 – June 2025

- Designed and built gameplay features and tooling for video titles.
- Developed a race track generation tool for AI inference, cutting AI training time by 60%.
- Led a team of 4 engineers to deliver a complete end-to-end game UI/UX flow.
- Created a C++ reflection-based architecture for game features, reducing development time by 40%.

## EDUCATION

**Master's degree in Computer Science**                                          **Turin University**
📋 110/110 cum laude, 29.00/30.00 GPA                                      📅 Dec 2019 - April 2022

- Key coursework: Virtual Reality and Multimedia Systems, Computer Graphics Modeling, Artificial Intelligence.
- Research thesis within the MPAI Standard Committee centered on creating and embedding deep neural networks into game server infrastructures to solve communication issues and identify cheating, reaching an accuracy of roughly 95%. Developed using C#, Unity and PyTorch.

**Bachelor's Degree in Computer Science**                                        **Turin University**
📋 106/110, 27.00/30.00 GPA                                                📅 Sept 2016 - Dec 2019

- Research thesis in Computational Linguistics and Natural Language Processing, titled "Extraction of syntactic-semantic information through hypernymic relations in Wikipedia", implemented in Java.

## SIDE PROJECTS

**Simple Sample**                                                                **Mobile App**
`</>` [Flutter] [Dart] [Firebase]                                        ⌨ giorgiogamba/SimpleSample

- Mobile application for sound capture and real time playback with sampler emulator and sequencer.
- Complete application design and development.
- Enabled media files sharing through Google Firebase and personal cloud hosting.
- Market analysis for product placement.

**Lava**                                                                          **Desktop App**
`</>` [C++] [Vulkan]                                                        ⌨ giorgiogamba/lava

- Game Engine built from scratch.

**Avil**                                                          **Upscaling detector and audio visualizer**
`</>` [C++] [PortAudio] [Make]                                              ⌨ giorgiogamba/avil

- Music file upscaling detector and audio visualizer, developed from scratch using PortAudio.

## TECHNOLOGICAL STACK

**Languages**: C++, Java, Python, HTML, CSS, Javascript
**Technologies**: Qt, Unreal Engine, Visual Studio, Git, Linux, CMake, JUCE, Tensorflow, Proxmox, Vulkan, Flutter

## LANGUAGES

**Italian** (native), **English** (fluent)

## INTERESTS

DJ and records digger, Keyboards Player, Berlin enthusiast, Personal Finance